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New records of *Corynesporopsis* from China

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Abstract — Three species of *Corynesporopsis* — *C. uniseptata*, *C. quercicola,* and *C. indica* — are recorded for the first time from China. They are described and illustrated from specimens collected on dead branches of unidentified plants. The specimens are deposited in Herbarium of Shandong Agricultural University, Plant Pathology (HSAUP) and Mycological Herbarium, Institute of Microbiology, Chinese Academy of Sciences (HMAS).

Key words —hyphomycetes, taxonomy

Introduction

Kirk (1981a) established the genus *Corynesporopsis* for the single species previously known as *Corynespora quercicola*. It is characterized by single, differentiated, sometimes percurrent, conidiophores and integrated, terminal, monotretic conidiogenous cells that produce short acropetal chains of ellipsoid to cylindrical euseptate conidia. These characters separate *Corynesporopsis* P.M. Kirk from other similar genera including *Corynespora* Güssow (Güssow 1906), *Corynesporella* Munjal & H.S. Gill (Munjal & Gill 1961), *Hemicorynespora* M.B. Ellis (Ellis 1972), and *Solicorynespora* R.F. Castañeda & W.B. Kendr. (Castañeda & Kendrick 1990). Nine species are currently included in this genus, of which *Corynesporopsis quercicola* and *C. biseptata* (M.B. Ellis) Morgan-Jones were transferred from *Corynespora* (Kirk 1981a,b, 1983, Holubová-Jechová & Mercado 1986, Holubová-Jechová 1987, Morgan-Jones 1988, Sutton 1989, Castañeda Ruíz & Kendrick 1990, Matsushima 1993). Only *Corynesporopsis isabelicae* Hol.-Jech. has previously been reported from China (Lu et al. 2000). Most species are reported to survive saprophytically on dead branches, twigs,

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and decaying leaves of various plants. During a continuing survey of tropical microfungi from the forests of Hainan Province of southern China, three species of *Corynesporopsis* were collected on dead branches. They are introduced as new records for China.

Taxonomy

Corynesporopsis uniseptata P.M. Kirk, Trans. Br. Mycol. Soc. 77(3): 463 (1981) Fig. 1

Specimen examined: on dead branches of unidentified plant, tropical forest of Bawangling, Hainan Province, China. 12 Dec 2009, J. Ma, HSAUP H5137 (duplicate HMAS 146082).

Fig. 1. *Corynesporopsis uniseptata*. Conidiophores and conidia.

Anamorphic fungi. Colonies effuse, blackish brown to black, hairy. Mycelium partly superficial, partly immersed in the substratum, composed of branched, septate, pale brown to brown, smooth-walled hyphae, 2–4.5 µm wide. Conidiophores differentiated, arising single or in groups on the haphae, erect, straight or flexuous, unbranched, brown, smooth, septate, up to 160 µm long, 3.5–5 µm wide. Conidiogenous cells monotretic, integrated, terminal, determinate, cylindrical, brown, smooth, 16–35 µm long, 4.5–6 µm wide. Conidia acrogenous, dry, in acropetal chains of up to 10, ellipsoid to cylindrical, 1-euseptate, constricted at the septum, smooth, brown, often with darker pigmentation at the septum, 14–21 µm long, 6–8 µm wide in the widest part.

Notes: *Corynesporopsis uniseptata* is reported for the first time from China. Compared with the morphology of the type specimen described by Kirk (1981b), the conidia of our collection are longer (14–21 µm vs. 12–16 µm) and the conidiophores are also longer (up to 160 µm vs. 60–100 µm), but we believe they are basically the same species. *Corynesporopsis uniseptata* most closely resembles *C. cylindrica* B. Sutton (Sutton 1989) in conidial shape and size range but differs in having didymospores with a median constriction at the septum. Moreover, the conidia of *C. cylindrica* are guttulate while *C. uniseptata* conidia are not.

Corynesporopsis quercicola (Borowska) P.M. Kirk, Trans. Br. Mycol. Soc. 77(2):284 (1981) Fig. 2

≡ *Corynespora quercicola* Borowska, Acta Mycol. 11(1): 60 (1975)

Specimen examined: on dead branches of unidentified plant, tropical forest of Bawangling, Hainan Province, China. 10 Dec 2009, J. Ma, HSAUP H5082 (duplicate HMAS 146083).

Anamorphic fungi. Colonies effuse, blackish brown to black, hairy. Mycelium partly superficial, partly immersed in the substratum, composed of branched, septate, pale brown, smooth-walled hyphae, 2–4.5 µm wide. Conidiophores differentiated, arising single or in groups, erect, straight or flexuous, unbranched, brown to dark brown, smooth, septate, 45–114 µm long, 3–4 µm wide, sometimes once or twice percurrent. Conidiogenous cells monotretic, integrated, terminal, cylindrical, brown, smooth. Conidia acrogenous, dry, in short acropetal chains, broadly ellipsoid to oblong, mainly 2-euseptate, rarely 1-euseptate, sometimes slightly constricted at the septum, smooth, polar cells pale brown, middle cell brown to dark brown, 13–21 µm long, 6–7 µm wide in the widest part.

Notes: This is the first report of this species in China. The conidia of the specimen examined are somewhat longer (13–21 µm vs. 12–18 µm) than those

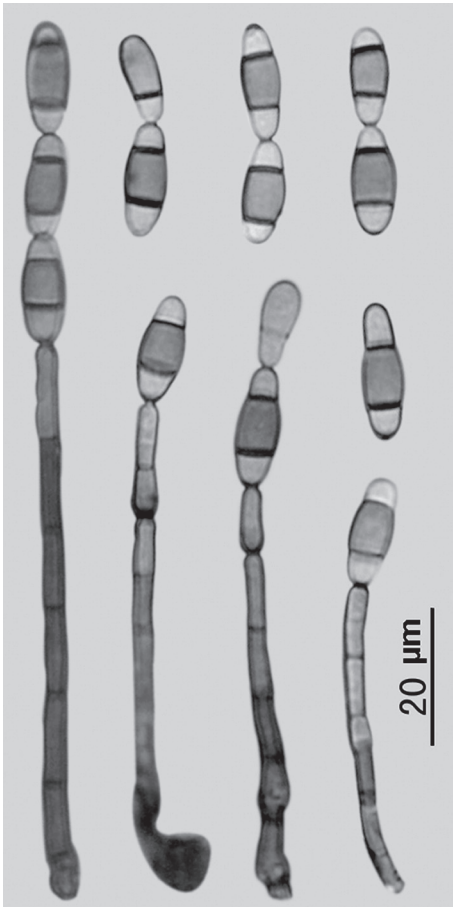

Fig. 2. *Corynesporopsis quercicola*. Conidiophores and conidia.

of the type specimen described by Kirk (1981a). This species has been recorded from Russia, Poland, United Kingdom, and Cuba. *Corynesporopsis quercicola* somewhat resembles *C. biseptata* (Morgan-Jones 1988) in conidial shape and septation but has smaller (13–21 × 6–7 µm vs. 18–33 × 7–9 µm) versicolored conidia.

Corynesporopsis indica P.M. Kirk, Mycotaxon 17: 405 (1983) Fig. 3

Specimen examined: on dead branches of unidentified plant, tropical forest of Baomeiling, Hainan Province, China. 9 Dec 2009, J. Ma, HSAUP H5274–1 (duplicate HMAS 146084).

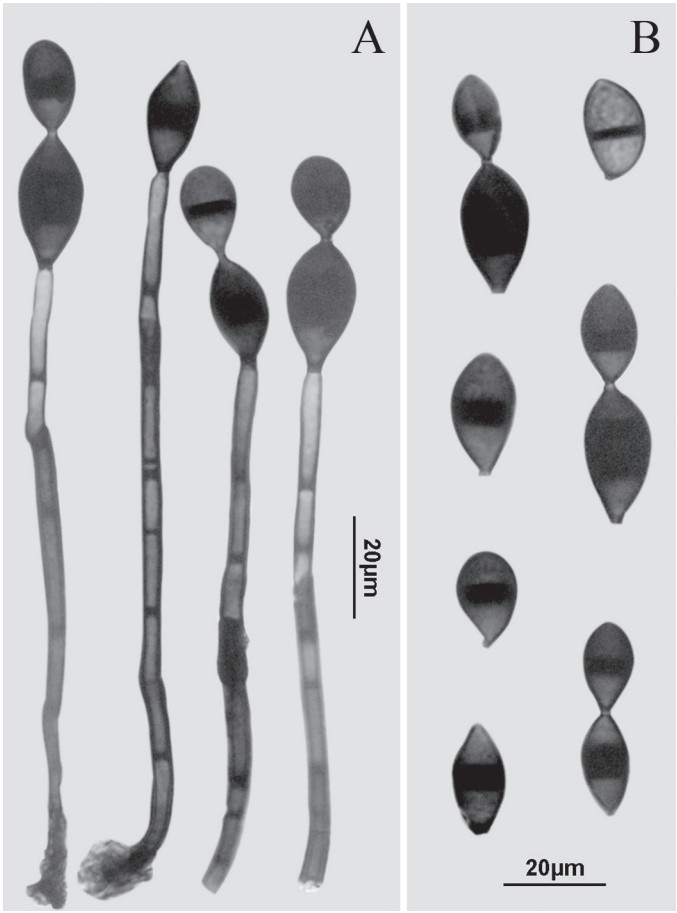

Fig. 3. *Corynesporopsis indica*. A. Conidiophores and conidia. B. Conidia.

Anamorphic fungi. Colonies effuse, blackish brown to black, hairy. Mycelium mostly immersed in the substratum, composed of branched, septate, pale brown to brown, smooth-walled hyphae, 1.5–3 μm wide. Conidiophores differentiated, single or in groups, erect, straight or slightly flexuous, unbranched, brown to dark brown, smooth, septate, 67–172 μm long, 3–5.5 μm wide, sometimes swollen at the base. Conidiogenous cells integrated, terminal, monotretic, cylindrical, brown, smooth, sometimes with percurrent proliferation. Conidia acrogenous, dry, solitary or in acropetal chains of 2 or 3, ellipsoid to broadly obovoid, sometimes somewhat biconic, i with one indistinct median euseptum,

the septum usually obscured by a darkly pigmented band, smooth, dark brown to blackish brown, 16–27 μm long, 8–13.5 μm wide in the widest part.

Notes: This species has not been previously recorded in China. The size range of conidia and conidiophores in our specimen overlaps well with that of the type specimen described by Kirk (1983), and other features of this taxon also match those of the original species. *Corynesporopsis indica* is unique within the genus in its ellipsoid to obovoid, 1-septate conidia with the septum usually obscured by a band of pigment.

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